

2. MINING AND THE PERUVIAN ECONOMY IN THE LATE COLONIAL PERIOD

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It has tended hitherto to be necessary, when one has written papers on the welfare of either the overall Peruvian economy or, more specifically, the mining industry in the late colonial period, to outline and then challenge the deep-rooted historiographical tradition which identified the last fifty years or so of the colonial period as an era of economic decline for the viceroyalty of Peru.¹ On this occasion, thankfully, such an introduction would be superfluous, for, it is now generally accepted, at least by specialist researchers, that it is invalid to identify the period between 1760 and 1810 as one of global crisis for the Peruvian economy. Some recent commentators, it is true, have accommodated this revised interpretation grudgingly, and continue to argue, for example, that, even if it can be demonstrated that the mining industry increased its production, "the colony's other economic sectors - manufacturing, agriculture, and commerce - presented a picture of gradual decline throughout the eighteenth century."² According to this interpretation "the most disastrous blow" was the loss of Upper Peru to the new Viceroyalty of the Rio de la Plata in 1776, a step which, together with the revocation of Lima's formal monopoly of Spanish South America's overseas trade in 1778, led to Buenos Aires supplanting Lima as the importer of European goods and the exporter of bullion. An alternative view, and one which is both more persuasive, and, as we shall see, supported by the fragmentary evidence available on internal and external commerce, is that most recently restated by Assadourian and others in their outline of a research project on Andean mining from the sixteenth to the twentieth century.³ Their essential hypothesis is that the mining industry in colonial Peru and Upper Peru was of such dynamic importance to the rest of the economy that the significant increase in silver production which characterized the period after 1750 necessarily both reflected and acted as a stimulus to the general expansion of the late colonial economy.

It remains true, of course, that our understanding of the social and economic structures of late colonial Peru is generalized and superficial.⁴ Significant progress is being made, however, as the contributions to this volume indicate and it has been reassuring to discover during recent

visits to Peru both that welcome advances are finally being made in the organization of regional archives, and that a new generation of domestic scholars is demonstrating an increased willingness to undertake detailed research in them.⁵ My own contribution to the debate has been to provide not a definitive, detailed statement of the state of the late colonial economy as a whole – it will be many years, surely, before any scholar will be capable of offering this – but a general survey of the state of the mining industry in the half century between the separation of Upper Peru and the obtaining of independence in 1824. This monograph, published in 1977 in both English and Spanish, was based essentially upon general documentation in Spanish archives concerning crown policy towards the mining industry in the reigns of Charles III and Charles IV, and upon the rich but somewhat introspective archive in Lima of the Mining Tribunal, the body founded in 1787 to regulate and promote silver mining in the viceroyalty.⁶ One is conscious that the study was limited chronologically – it deliberately ignored the pre-1776 period primarily because of the immense difficulty of locating detailed data about production for the years prior to the inauguration of the *visita general* of José Antonio de Areche and Jorge de Escobedo –, geographically – little attempt was made to examine the continuing links between Lima and Upper Peru –, and thematically, in that the relationship between merchants and miners was hinted at rather than analysed in detail. But it was considered appropriate to present the fruits, immature though they were, of my investigations to fellow researchers, partly because they provided a reasonably full account of crown policy towards the reorganization and modernization of the mining industry, and, thus, could make a useful contribution to the overall appreciation of the efficacy of the Bourbon reforms – and also because of the hope that the data therein on silver production, mercury supply, and labour would provide a useful framework within which others might pursue more systematic research at a local level.

Before going on to discuss recent historiographical advances, it is perhaps appropriate to restate the principal conclusions of my 1977 research, which was supplemented by two articles: the first, published in 1976, although written while the monograph was in the press, demonstrated on the basis of *alcabala* accounts kept in the Archivo General de la Nación, a clear dynamic relationship between the rapid increase in silver production at Cerro de Pasco, Peru's leading mining centre in the late colonial period, and the transmission there from the viceregal capital of imported European manufactures.⁷ It thereby supported the thesis

that the mercantile community of Lima benefitted from the expansion of mining through its links with the *aviadores* which enabled it to supply both credit and merchandise to the mining centres, whilst holding back from the longer-term investment which characterized the Mexican industry in the same period. The second article, published in 1978, adopted a somewhat different approach to the same basic problem of the links between miners and merchants, by sampling notarial records in the Archivo Histórico Departamental of Arequipa to trace ties between registered miners and merchants in Huantajaya, the most southerly of Peru's mining centres. It revealed not only links but also a confusion of identities, in that the principal mine owners of Tarapacá were identified as leading residents of Peru's second city, prominent as merchants, landowners, and magistrates.⁸

The first, and most important, conclusion which can be drawn from my research is that the attempts of the Spanish crown to stimulate the mining industry in Lower Peru after 1776 inaugurated a period of impressive growth in the industry. The Spanish Crown, recognizing the vital importance of silver mining to both the Peruvian and the general imperial economies, despite a growing emphasis upon the need for the development of agricultural resources, made a determined effort in this period, as part of an overall strategy of imperial reform, to modernize and revitalize the inefficient mining industry which had been allowed to develop haphazardly during the previous two centuries. It did so against a background of deep pessimism in Peru about the viceroyalty's economic future following the loss of the mines of Upper Peru to the new viceroyalty of the Río de la Plata in 1776.

The decade after 1776 was devoted principally to an investigation of the state of the mining industry in Peru and the formulation of plans to reinvigorate it. Areche concentrated upon attempts to improve the supply of mercury from Huancavelica, while Escobedo, his more able successor as *visitador general*, paid more attention to the need for basic structural reform, which he considered an essential preliminary to technical improvement. The fundamental features of his policy were the adaptation of the Mexican mining ordinances of 1783 for use in Peru, and, arising out of this, the organization of the viceroyalty's miners into a guild, headed by a mining tribunal, which, from the beginning of 1787, was endowed with the basic responsibility for the future welfare of the industry. The mining tribunal operated reasonably successfully in certain spheres, such as that of judicial administration, but it failed to improve the social standing of the majority of miners, who were generally

regarded as the inferiors of merchants and bureaucrats, and it also did little to weld them into an effective pressure group. Elections in the local deputations and to the tribunal itself were characterized by confusion, intrigue and manipulation. Successive viceroys met little resistance as they interfered with elections to the tribunal, and, more seriously, as they cynically restricted its attempts to use its revenue for the welfare of miners as a whole. The most serious intervention in the tribunal's affairs was that of Viceroy Francisco Gil, who in 1794 closed the exchange banks established at the beginning of the decade, apparently so as to prevent miners using them in preference to local silver merchants.

In the sphere of mining education there was no progress. Escobedo looked forward in the 1780's to the establishment of a mining college, as suggested in the new mining code, but a combination of official disinterest in Madrid and the stubborn reluctance of miners to consider abandoning time-honoured techniques prevented the opening of such an institution. An alternative means of improving the industry's technology was theoretically provided by the Nordenflicht mining mission. This, too, however, was a disastrous failure. Its basic difficulty was that the new amalgamation which the Swede, Thaddeus von Nordenflicht, and his team of German specialists were supposed to disseminate in Peru, proved, in practice, to be unsuitable for the dispersed type of industry that had developed there. With greater cooperation from the Mining Tribunal and more imaginative deployment of his German colleagues by successive viceroys, Nordenflicht might still have contributed to the improvement of mining technology in Peru, but the antipathy between him and the industry's representatives intensified the longer he remained in the viceroyalty. His mission continued officially for over twenty years, but only because successive ministers in Madrid literally forgot about it as the programme of imperial reform as a whole lost its impetus in the reign of Charles IV.

Despite Nordenflicht's failure to introduce modern European technology to the mining and refining of Peruvian silver ores, and the inability of the Mining Tribunal to promote mining education, the industry experienced a prolonged period of expansion in the last quarter of the eighteenth century. As Figure I indicates, silver production more than doubled in the fifteen years after 1776, and by 1792 it had passed the 500,000 marks level. It reached a peak of 637,000 marks in 1799, and, although somewhat less buoyant in the first decade of the nineteenth century, remained high until 1812. This impressive growth was made possible to a certain extent by an improved supply of mercury,

particular in the period after 1784. The increased demand for the commodity was met not from Huancavelica, which, after being temporarily stimulated by the closure of the old royal mine and the granting of permission for the working of other deposits around the town, gradually became increasingly unable to provide all the mercury required in Peru, but by heavy shipments of Spanish and Idrian mercury from Cádiz.

Figure 1 : Registered silver production in Peru, 1771-1824

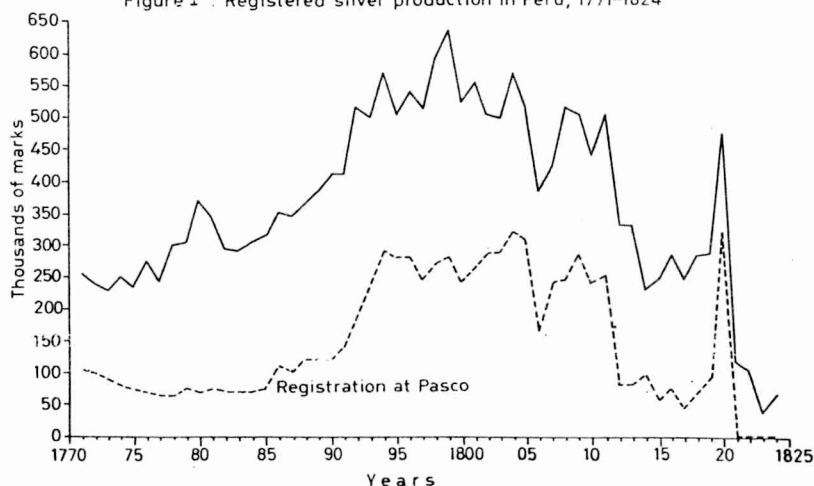
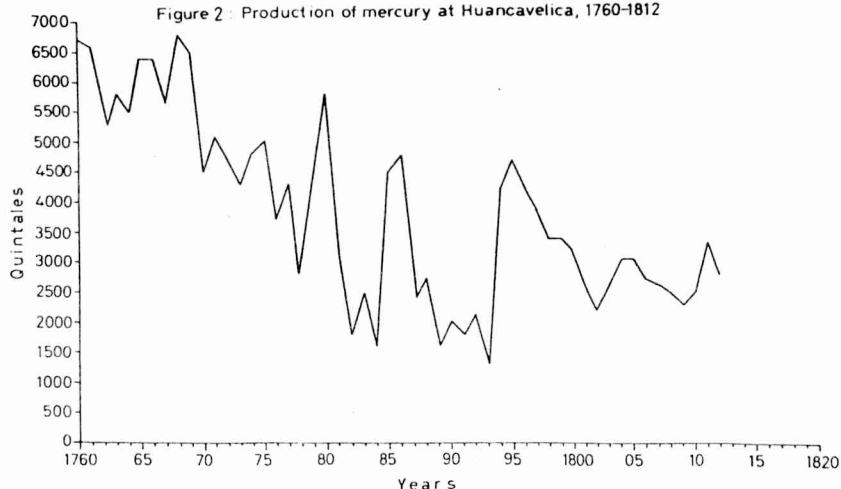


Figure 2 : Production of mercury at Huancavelica, 1760-1812



Reserves were never large enough to satisfy silver miners, but, in practice, there was sufficient mercury stockpiled in Peru to prevent major crisis for them during the three periods when warfare between Spain and Great Britain cut off supplies from the peninsula. (See Figure II and Table I).⁹ Had reserves been greater, or Huancavelica more productive, silver production, would probably have been even higher, and it undoubtedly would have been so had the Crown acted before 1809 to bring the price charged for the amalgamating agent closer to that charged in New Spain.

TABLE I: *Peruvian Mercury Imports 1776 - 1816*

| YEAR | AMOUNT | YEAR | AMOUNT |
|------|----------|---------|-----------|
| 1776 | 4,000.50 | 1796 | 1,000 |
| 1777 | 3,968 | 1797 | 2,996 |
| 1778 | 5,966.06 | 1798 | - |
| 1779 | 1,997.86 | 1799 | - |
| 1780 | - | 1800 | - |
| 1781 | - | 1801 | - |
| 1782 | - | 1802/03 | 9,930 |
| 1783 | - | 1804/05 | 7,501 |
| 1784 | 1,998.17 | 1806 | - |
| 1785 | - | 1807 | - |
| 1786 | 4,002 | 1808 | - |
| 1787 | - | 1809 | 5,032 |
| 1788 | 1,500 | 1810 | 4,919 |
| 1789 | 8,004 | 1811 | - |
| 1790 | 4,511 | 1812 | - |
| 1791 | 3,501 | 1813 | - |
| 1792 | 2,500 | 1814 | 5,044 |
| 1793 | 2,500 | 1815 | - |
| 1794 | 3,000 | 1816 | 2,048 (?) |
| 1795 | 2,498 | | |

The other general factors governing the level of silver production were the availability of labour and capital, although the former was perhaps less crucial than many miners believed. They frequently protested about the difficulty of persuading Indians to agree voluntarily to work in the mines, but, in fact, it is clear that the viceroyalty's permanent force of mineworkers was large in relation to its total population. Indian communities in some areas still provided men to perform mita service at Potosí and Huancavelica, or cash compensation to miners there instead. But silver mining in Lower Peru was basically dependent

upon voluntary workers. This did not prevent miners from frequently demanding the extension of the mita system to provide them with an improved supply of labour, or viceroys and other administrators from agreeing to the conscription of Indians for certain projects. The difficulties in overcoming steadfast Indian resistance to forced work in the mines, however, outweighed the advantages to be derived from the payment of artificially low wages, and most miners found it easier to recruit men on a voluntary basis. Local labour shortages in times of high silver production occasionally enabled workers to exploit competition for their services, but they usually worked long hours in harsh conditions for very small wages.

With a few important exceptions, the average Peruvian silver miner employed about a dozen men and worked a single pit, producing just enough silver to cover his costs. The mining tribunal frequently drew attention to the fact that in many areas the industry operated almost at a subsistence level, and protested that the main reason for its backwardness was the fact that merchants in Peru, unlike in New Spain, were simply not prepared to invest capital in basic improvements. Their reluctance to provide long-term investment capital was partly a result of the fact that miners were notoriously unreliable at repaying loans, as the tribunal itself discovered when it advanced capital to a number of individuals. A more positive reason, however, for mercantile unwillingness to invest directly in the industry was that there were larger, quicker profits to be made from the investment of capital in the supply of manufactures to miners. As silver mining expanded, in fact, it provided a growing market for imported manufactures, and offered merchants some compensation for the loss of their former lucrative trade with the *corregidores*, following the introduction of the intendant system in 1784. As mercantile confidence revived with the expansion of overseas trade, particularly in the decade before 1796, capital was also channelled to miners through *aviadores*, although generally on a short-term basis and at high rates of interest.

The reliance of the *aviadores* upon capitalists in Lima for both credit and supplies meant that the welfare of the mining industry was closely related to that of trade. The general fall in silver production throughout Peru after 1812 was partly a product of the economic disruption caused by continuing warfare in Europe and revolutionary activity in South America. The most important single cause, however, was a sudden collapse of the industry at Cerro de Pasco, which had emerged in the previous twenty years as the leading mining centre in the viceroyalty.

Cerro de Pasco's expansion had been made possible by the cutting of drainage tunnels, which, although relatively near the surface, had enabled miners there to bring vast quantities of ores to the surface for refining. By 1812, however, most of the pits had reached the maximum depth at which they could be effectively drained by these traditional *socavones*, and the result was an immediate fall in production. The years after 1812 saw a continuing decline at Cerro de Pasco, and also in most other Peruvian mining centres. The situation deteriorated as mercury became increasingly scarce, and, more seriously, as Spanish merchants began to ship their capital back to Europe. But, against the general trend, one small group of capitalists in Lima attempted to solve Cerro de Pasco's drainage problems by importing English pumping engines for use there. With the full support of the viceregal authorities, who were as aware as the promoters of the company of the advantages to be derived from English technology, steam engines were installed and in action by 1820. They made an immediate, dramatic impact upon the level of silver production by enabling miners at Cerro de Pasco to exploit rich ores lying beneath the water level for the first time, and silver registration at Pasco soared to over 300,000 marks in 1820 as a result.

The Wars of Independence destroyed both the steam engines and the prospects of renewed expansion for the silver mining industry in Peru. It is abundantly clear, however, that, contrary to what many historians have asserted, the late eighteenth century, at least, was not a period of decline. The growth of the industry in the late colonial period was relatively limited, it is true, in comparison with what occurred in New Spain, and its backwardness was still sufficiently evident in 1800 to discourage dreams of economic revolution such as were being entertained by the inhabitants of rapidly expanding areas like the Rio de la Plata. Nevertheless, it was surely sufficiently impressive to convince Peruvians that, despite what many of them had believed immediately after 1776, the viceroyalty had not been condemned to permanent economic decline by the loss of Upper Peru.

Little of importance has been published in the last few years specifically on the mining industry of eighteenth century Lower Peru. There have appeared, however, several significant contributions on other aspects of economic activity, and one of their effects has been to further erode the interpretation of the period as one of sustained decline. Nicholas Cushner's incisive 1980 monograph on the Jesuit estates of colonial Peru, for example, depicts the period after 1700 as one of radical improvement in the financial position of the Society of Jesus,

suggesting that this development may be regarded as an indicator of a general expansion of the viceregal economy in the first half of the eighteenth century.¹⁰ His work also provides a fascinating picture of the Jesuit marketing and distribution network for sugar and wine, which radiated from Peru to Quito, the Rio de la Plata, and Paraguay, thus reminding researchers of the existence of a series of overlapping and complex economic infrastructures which often remain invisible to those preoccupied with external trade between Peru and markets further afield. A similar function is fulfilled, albeit on a much more limited scale, for the post-1767 period by Jorge Polo's valuable 1976 study of the fortunes of the former Jesuit hacienda of Pachachaca.¹¹ This work, too, provides a glimpse of a flourishing agricultural economy, and substantiates the now generally accepted assumption that the separation of Upper Peru from the old viceroyalty did little to damage the importance of the Potosí market for the sugar producers of the Cuzco region. Magnus Mörner's 1978 study of rural society in the province of Cuzco at the end of the colonial period – an appetizer for his eagerly awaited analysis of the historical dimensions of the social structure of southern Peru in the nineteenth and early twentieth centuries – is also worthy of mention in this context.¹² It, too, provides evidence of the continuing and extreme importance of the Upper Peruvian market for the sugar, coca, and cloth of Cuzco, as well as confirmation of a clear population increase between the late seventeenth century and the late eighteenth century. It is interesting to note, however, that the latter process was not uniform, and that one of the suggested reasons for the continuing migration of indigenous males from certain zones, a process which inevitably caused an imbalance of the sexes, was "the destructive impact of the mining mita."¹³ More recently still the pioneering study of Olinda Celestino and Albert Meyers on *cofradías* in central Peru has attributed the incessant and increasing judicial conflicts over land titles in the eighteenth century in part to "the growing pressure of men on the land and the demographic recovery which occurred in almost all the regions".¹⁴

Further evidence of the continuing and, indeed, growing vitality of the Peruvian economy in the final decades of the eighteenth century is provided by recent research into the effects of *comercio libre* upon exports from Spain to America between 1778 and 1796.¹⁵ Throughout this period exports through Cádiz were worth on average 76 percent of total exports from Spain to the empire, and an analysis of their stated destinations provides an interesting measure of the relative economic

importance of different regions. Predictably, New Spain was the most important market, absorbing over 40 percent of the goods exported through Cádiz in 1785–1796; Venezuelan ports took 10 percent, and Cartagena, the Caribbean port of the viceroyalty of New Granada, 8 percent. The Rio de la Plata, served through Montevideo and Buenos Aires, emerged as an important market for the Cádiz merchants, its share of 11 percent of their exports being slightly larger than that of Venezuela. But the Pacific market, within which silver-rich Peru was by far the most important single region, was more important in this period than Venezuela and the Rio de la Plata put together. It absorbed from Cádiz alone goods with an average annual value of 52 million *reales* (2.6 million *pesos*) at 1778 value, compared with 26 million *reales* (1.3 million *pesos*) for the Rio de la Plata, and 24 million *reales* for Venezuela. It is not possible, unfortunately, to calculate the precise distribution of merchandise between Valparaíso, Arica, Callao, and Guayaquil, for, although virtually all the shipping registers name Callao as the single port of destination, a few link it with other Pacific ports without providing details of the proportions of cargoes intended for each. Nevertheless, there is little doubt that Peru absorbed the bulk of this merchandise, paying for it with the increasing output of its silver mines: bullion accounted for 88 percent of its exports to Spain in 1785–89 and 85 percent in 1790–94.¹⁶ Although substantially more ships went from Cádiz to the Rio de la Plata than to Peru, they tended to be small vessels, carrying relatively unimportant cargoes, whereas individual vessels supplying the more discerning and richer Peruvian market each carried goods worth up to almost a million pesos at wholesale values in Cádiz.¹⁷ It is clear that Buenos Aires drew some trade away from Lima after 1778, but the idea that it supplanted it is a myth, albeit one created by the Consulado of Lima in its vehement protests against free trade. In the mid-1780's, when the Spanish American market as a whole was being flooded with unsaleable goods, its fears were not entirely groundless, but the pattern of trade quickly stabilized, and during the decade 1787–1796 exports from Cádiz to Callao were substantially larger than those to the Rio de la Plata in every year except 1790. Continuing research on the reverse trade, between America and Spain, in the same period, is planned, and should add substantially to our understanding of the economic effects of the Bourbon commercial reforms in Spanish America.¹⁸

In view of the fundamental importance of the mining industry to the whole economy of late colonial Peru, continuing research into trade and

agriculture will inevitably throw light upon mining, and vice versa. It is also the case that any serious attempt to comprehend the totality of the Peruvian economy in this period must take account of the continuing close commercial links between the truncated viceroyalty and its further dependencies, notably Upper Peru.

The historiographic picture with regard to economic life in Upper Peru has improved considerably. Peter Bakewell's researches into the early history of Potosí have extended, insofar as silver production is concerned, as far as 1735.¹⁹ On the late colonial period proper the outstanding developments have been the appearance of Enrique Tandeter's 1980 doctoral dissertation on the Potosí mining industry, 1750-1826, and the publication of Rose Marie Buechler's monograph on the mining society of Potosí, 1776-1810.²⁰ Tandeter's dissertation ranges widely across labour supply, investment and profit, and royal policy. It is appropriate to point out that he confirms the assumption that silver production continued after 1750 to recover from its early eighteenth century trough, although the industry in Potosí remained dangerously dependent upon the state for the provision of labour, mercury, and financial subsidies. When these props were necessarily withdrawn, as a consequence of the destruction of the colonial state during the Wars of Independence, Upper Peruvian silver mining was left even more exposed to the harsh winds of change than the industry in other Spanish American countries. The contraction of Upper Peruvian mining had already begun about 1800, it is argued, the decline was accentuated from 1810, and continued until the 1870's, despite the somewhat feeble attempts of English investors to pick up the pieces in the 1820's.²¹

Like Tandeter, Buechler does not attempt a definitive statement of the level of silver production in Upper Peru throughout the period under consideration. But her figures of purchases made by the Real Banco de San Carlos between 1779 and 1820, which must approximate closely to total registered production, confirm his suggestion of stable production in the 1780's and 90's, followed by decline after the turn of the century, slow at first and accelerated in the second decade of the nineteenth century. Between 1779 and 1788, the San Carlos purchases exceeded the registration of silver throughout Lower Peru. Thereafter, as Figure I indicates, the output of the Lower Peruvian mines surged ahead, while that of Potosí stagnated and then declined.²² In 1802 purchases at Potosí - 205,000 marks - were only 40 percent of registered Peruvian production - 505,000 marks - of which the single centre of Cerro de Pasco accounted for 283,000. Thereafter, Peruvian output remained

substantially higher than that of Upper Peru for the remainder of the colonial period. Both entered upon a period of decline after 1812, partly as a consequence of economic dislocation caused by continuing hostilities in Europe, partly because of internal revolutionary activity. But whereas Potosí's decline continued inexorably, that of Lower Peru was abruptly arrested in 1820, as we have noted, as the consequence of the installation of the English pumping engines at Cerro de Pasco.

Despite the fact that it contains valuable information on silver production at Potosí, Buechler's meticulous monograph is concerned primarily with social history and the general impact of the Bourbon reforms in Potosí rather than with economic life as such. A thorough analysis is provided of the social composition of the mining guild. It demonstrates the complex links between immigrant silver producers and the creole owners of refining plants, who tended to rent their facilities to the new arrivals rather than engage directly in large-scale production. The internal affairs of the guild, it is shown, were characterized on the one hand by the factious squabbles for which miners throughout the empire were notorious and, on the other, a readiness for all members to combine with local administrators against interference from both Buenos Aires and Madrid.

It seems legitimate to suggest that as a result of this recent work on Upper Peru, coupled with one's earlier researches on Lower Peru, the overall level of silver production in both areas has been established with reasonable accuracy for the late colonial period. It remains true, of course, that a considerable proportion of silver actually produced undoubtedly escaped registration to enter the channels of contraband trade, but it is difficult to find a way of measuring this phenomenon with precision: most commentators reproduce Humboldt's estimate that a quarter of total production was syphoned off.²³

Figures of silver registration, like the even more general data on treasury receipts, can offer at best only a guide to the performance of the mining industry, and, indeed, can sometimes be misleading. For example, the figures presented in John J. TePaske's fascinating paper in this volume on the income of the Lima treasury seem, at first sight, to suggest that the mining industry was more heavily taxed in the 1770's than in the boom period of the 1790's. But reference to his major compilation of treasury accounts for Peru indicates that the yield of taxes on mining in other treasuries, notably Pasco, expanded significantly in the last decades of the eighteenth century.²⁴ The Lima figures, therefore, might be taken as reflecting a relative decline of the mining indu-

stry in the areas adjacent to the capital, coupled with a greater readiness of miners and merchants to do their business with local treasuries.

Another very suggestive contribution to this volume is that of John Coatsworth. One's immediate reaction to this is that, whilst the approach is fascinating, it depends upon the reliability and appropriateness of the indices used to measure the purchasing power of silver. As far as Peru is concerned, the principal commodities which miners needed for their operations were mercury and labour and their other major areas of consumption were in the purchase of imported manufactures, followed by local agricultural and viticultural products. The price for mercury was fixed, that of labour fluctuated from region to region and week to week, although on the whole there was not a "labour shortage." The price of imported goods probably fell in the 1780's and early 90's, while little is known of agricultural prices. One point to bear in mind here, is that many miners were also merchants and/or agricultural producers, large and small. Mining, in other words, can be isolated from the rest of the economy, and miners (who ranged from entrepreneurs to subsistence producers) from the rest of society, but the processes tend to be artificial. What is clear is that at the moment we simply do not possess the detailed data required to establish whether in Peru, for example, the real purchasing power of silver or the costs of labour, altered substantially in the eighteenth century.

One unanswerable question which is touched upon in the introduction to this volume is the extent to which the overall economic structure of Peru in the late colonial period reflected and/or provoked regional differentiation. A comment upon rather than a definitive answer to this question is that regionalism is certainly one of the crucial features of the late colonial political and social structures of Peru, with close identification between racial conflict, insurgency, and the general hostility of the southern interior, represented by Cuzco, towards the viceregal capital.²⁵ There are some indications that this hostility had in part an economic basis, and in this context it is possible, for example, to cite protests from mining deputations in Puno and Huamanga against the extravagance and inutility of the Mining Tribunal in distant Lima, and its neglect of their local interests.²⁶ However, mining was relatively unimportant in the province of Cuzco, which acted as the focus for this regional discontent, particularly after 1810, and one's general view at this stage is that tradition, coupled with racial and social considerations was probably a more important cause of antimetropolitan sentiment than anything specifically economic. It is also feasible that the relative prosperity of the

late colonial period, a prosperity based primarily upon the growth of the mining industry, predisposed and enabled the elite in the viceregal capital to prefer continuing dependence upon Spain to the uncertain future offered by the tentative movements for independence which surfaced between 1810 and 1815 and which were characterized, especially in 1814, by a strong anti - Lima bias.

NOTES

1. John Fisher, "Silver production in the viceroyalty of Peru, 1776 - 1824," *HAHR*, 55(1975), 25 - 45.
2. Timothy E. Anna, *The Fall of the Royal Government of Peru* (Lincoln, 1979), p.4.
3. C. Sempat Assadourian et.al., *Minería y espacio económico en los Andes: siglos XVI - XX* (Lima, 1980).
4. For an ambitious but perhaps premature attempt to provide a synthesis, see Javier Tord and Carlos Lazo, *Hacienda, comercio, fiscalidad, y luchas sociales (Peru colonial)* (Lima, 1981).
5. This is particularly true of southern Peru, where the Archivo Arzobispal of Cuzco is now catalogued and open to researchers, and the Archivo Histórico has recently made available the enormously rich Fondo Vega Centeno.
6. J.R. Fisher, *Silver Mines and Silver Miners in Colonial Peru, 1776 - 1824* (Liverpool, 1977), and John Fisher, *Minas y mineros en el Perú colonial* (Lima, 1977).
7. J.R. Fisher, "Miners, Silver Merchants and Capitalists in Late Colonial Peru," *IAA*, N.F., 2(1976), 257 - 268.
8. John Fisher, "The Miners of Peru in 1790," in J. Schneider, ed., *Wirtschaftskräfte und Wirtschaftswege (Festschrift für Hermann Kellenbenz)*, IV: *Übersee - und allgemeine Wirtschaftsgeschichte* (Nürnberg, 1978), pp.117 - 127.
9. The figures and the table are from Fisher, *Silver Mines*, as are these general observations.
10. Nicholas P. Cushner, *Lords of the Land: Sugar, Wine, and Jesuit Estates of Coastal Peru, 1600 - 1767* (Albany, 1980).
11. Jorge Polo y la Borda G., *La hacienda Pachachaca: autoabastecimiento y comercialización (segunda mitad del siglo XVIII)* (Lima, 1980).
12. Magnus Mörner, *Perfil de la sociedad rural del Cuzco a fines de la colonia* (Lima, 1978).
13. *Ibid*, p.153.
14. Olinda Celestino and Albert Meyers, *Las cofradías en el Perú: región central* (Frankfurt, 1981), p. 161.
15. John Fisher, "Imperial 'Free Trade' and the Hispanic Economy, 1778 - 1796," *JLAS*, 13(1981), 21 - 56.
16. J.R. Fischer, *Government and Society in Colonial Peru: The Intendant System 1784 - 1814* (London, 1970), pp.132 - 136.

17. Fisher, "Imperial 'Free Trade'," pp.46 - 47.
18. The author has undertaken such research in Spanish archives in the past few years.
19. Peter J. Bakewell, "Registered Silver Production in the Potosí District, 1550 - 1735," *JLA*, 12(1975), 67 - 103. See, too, the same author's "Technological Change in Potosí: The Silver Boom of the 1570's," *JLA*, 14(1977), p.57 - 77, and Antonio López de Quiroga, *industrial minero del Potosí colonial* (Cochabamba, 1973).
20. Enrique Tandeter, "La rente comme rapport de production et comme rapport de distribution. Le cas de l'industrie minière de Potosí 1750 - 1826," Thèse de 3^{me} Cycle en Histoire, (Paris, 1980). Rose Marie Buechler, *The Mining Society of Potosí, 1776 - 1810* (Ann Arbor, 1981).
21. Enrique Tandeter, "Los ingleses en Potosí a fines de 1826," *HC*, 3(1978), 125 - 143. See, too, Antonio Mitre, *Los patriarcas de la plata: estructura socioeconómica de la minería boliviana en el siglo XIX* (Lima, 1981).
22. For Upper Peru see Table 3 in Buechler, *The Mining Society*, p.31.
23. Alexander von Humboldt, *Ensayo político sobre el reino de la Nueva España* (Mexico, 1966), p.406.
24. John J. TePaske and Herbert S. Klein, *The Royal Treasuries of the Spanish Empire in America. Volume 1: Peru* (Durham, N.C., 1982).
25. J.R. Fisher, "Royalism, Regionalism, and Rebellion in Colonial Peru, 1808 - 1815," *HAHR*, 59(1979), 232 - 257.
26. Fisher, *Silver Mines*, p.44.